

coloronix®



COLOR RAY REMOTE CONTROL DEVICE

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Coloronix, Inc.

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Summary

Introduction

Color changing fixtures are active, top-of-the-line color changing fixtures. They draw on solid-state elements in order to produce highlights and washes in architectural spaces.

When installed and operated according to this manual, these fixtures will operate safely and dependably for their rated lifespan.

A Color Ray Signal from the internal stand-alone controller or external controller can be used as well.

Scope

The purpose of this manual is to properly install and use Color Ray Receiver and Remote Control at peak performance.

This manual must be complimented by additional references, consultation from qualified professional(s), and observance of state and local codes and regulations. This rule applies to any interior structure, exterior structure, or environment.

Therefore, it is important to: *"read and comply with all instructions and warnings in this manual when installing or using this product."*

Who Is This Manual Intended for?

This manual is intended for electrical contractors, electrical engineers, and licensed electricians.

Additional Supplies

The following tools are necessary to install the dimmer:

- Slotted/Phillips Screwdriver
- Pliers
- Cutters
- Electrical Tape
- Pencil
- Ruler


Safety


Purpose of Product

To control Coloronix color changing fixtures using on board Color Ray programs.


Hazard Icon Key:


The “ **DANGER**” icon means avoiding *pending* danger will result in serious injury, or death.

The “ **WARNING**” icon means avoiding this warning may result may in serious injury, or death.


The “ **CAUTION**” icon means not exercising caution here may result in minor to moderate injury, or property damage.


The precautions are:


 **DANGER:** Not turning off the main power before wiring, installing, connecting, or disconnecting this product may result in serious injury, or death.


 **WARNING:** Not following NEC codes, local codes, or consulting a certified professional may result in property damage, serious injury, or death.


 **WARNING:** Not following instructions, or safety labels may result in property damage, or serious injury.


 **WARNING:** Modifying, servicing, or ignoring these safety indications may void the warranty.


 **WARNING:** Inspect product before use. DO NOT use if damaged.

 **WARNING:** Install safety cables per local and structural engineer's code.

 **CAUTION:** Hot swapping, not turning off fixtures before connection or disconnection, will void the warranty, and damage property.

 **CAUTION:** Do not go beyond the specified voltage, input current, maximum number of fixtures, or run length.

 **CAUTION:** Do not use sharp tools near the reflector or lens.

 **CAUTION:** Do not look directly into beam, with or without optical instruments.

Specifications

Power Input: Direct 120VAC 50Hz/60Hz or 24VDC Option Available 0.15A Max.

Power Consumption: 2W

Temperature Rating: 0°F - 120°F Ambient

Planning for Installation

Unpacking

The Color Ray Receiver and Remote Control is shipped assembled with no additional assembly needed—they are shipped in separate packages.

Any optional accessories are included in the package. Use the packing list located on the outside of the box to ensure all accessories are included.

Survey the unit to make sure the units are all intact—not cracked or damaged. Any damages to the package or its contents are of the buyer's responsibility; please follow protocol for filing damage claims. Please recycle or appropriately discard of any packing materials.

Preparation

Before Installation, Coloronix suggests:

- Consulting the provided submittal drawings to recognize layouts of luminaries, power supplies, and wiring layouts.
- Drawing out a layout plan consisting of locations of luminaries and wiring.
- Record DMX addresses on a mapping grid for easy reference and addressing (where applicable).
- An electrical inspector reviews all wiring plans.

Points to Consider About Data

- Use a Belden 9481 or similar cable for DMX data connectivity or Plenum rated CAT5 8-wire cable.
- AC Power and DATA cables may NOT run in the same conduit due to possible induced errors.

Color Ray Stand Alone Mode

For application not using Color Ray control, user can access preprogrammed shows. The fixture's on board computer has been pre-configured with Color Ray programs. No additional software or hardware is needed to access.

Program	Function	Speeds
p. 1	Full Rainbow: Full Color Fade, Repeat	0.5 seconds
p. 1	Full Rainbow: Full Color Fade, Repeat	5 seconds
p. 1	Full Rainbow: Full Color Fade, Repeat	5 minutes
p. 1	Full Rainbow: Full Color Fade, Repeat	30 minutes
p. 6	Christmas Colors: Red, Green, Repeat	0.5 seconds
p. 6	Christmas Colors: Red, Green, Repeat	5 seconds
p. 6	Christmas Colors: Red, Green, Repeat	5 minutes
p. 6	Christmas Colors: Red, Green, Repeat	30 minutes
p. 4	Cool Blue: Dark Blue, Sky Blue, Repeat	0.5 seconds
p. 4	Cool Blue: Dark Blue, Sky Blue, Repeat	5 seconds
p. 4	Cool Blue: Dark Blue, Sky Blue, Repeat	5 minutes
p. 4	Cool Blue: Dark Blue, Sky Blue, Repeat	30 minutes
p. 2	Exotic Colors: Orange, Turquoise, Neon Green, Fuchsia, Repeat	0.5 seconds
p. 2	Exotic Colors: Orange, Turquoise, Neon Green, Fuchsia, Repeat	5 seconds
p. 2	Exotic Colors: Orange, Turquoise, Neon Green, Fuchsia, Repeat	5 minutes
p. 2	Exotic Colors: Orange, Turquoise, Neon Green, Fuchsia, Repeat	30 minutes
p. 3	Pastel Colors: Full Pastel Color Rainbow	0.5 seconds
p. 3	Pastel Colors: Full Pastel Color Rainbow	5 seconds
p. 3	Pastel Colors: Full Pastel Color Rainbow	5 minutes
p. 3	Pastel Colors: Full Pastel Color Rainbow	30 minutes
p. 5	Hot Lava: Red, Orange, Repeat	0.5 seconds
p. 5	Hot Lava: Red, Orange, Repeat	5 seconds
p. 5	Hot Lava: Red, Orange, Repeat	5 minutes
p. 5	Hot Lava: Red, Orange, Repeat	30 minutes

Color Ray Remote Control

For remote control of the Color Ray setting, use SCC5-In-Wall Receiver and remote control. All programs and static colors can be set via remote control.

Electrical Connection

NOTE: Supply lead wires should not be connected to a dimmer of any sort.

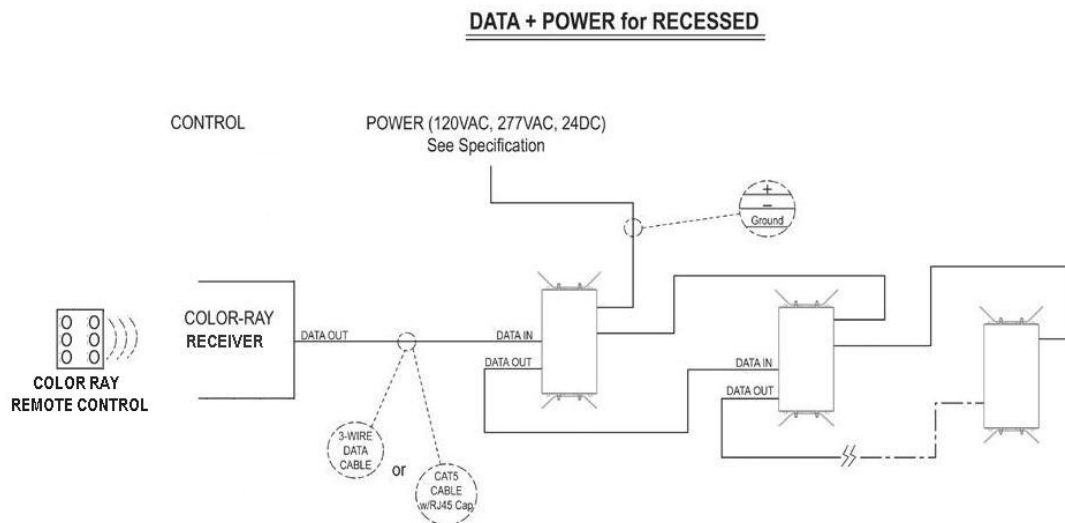
Installing Your Color Ray Receiver

1. Prepare Wires:

Note: Make sure the low-voltage wiring is installed at the wall box that will house the Color Ray receiver.

- Be sure that the ends of the wires from the wall box are straight—cut if necessary.
- Remove 5/8" or 1.6 cm of insulation from each wire in the wall box.

2. Connect CAT5/RJ45 Cable to Receiver Coupler



3. Connect Power

Connect the line voltage (120V) wires in the following manner:

Screw the wire nuts clockwise so that no bare conductors show below the wire connectors. Secure each connector with the electrical tape.

- Green dimmer Ground lead to Green or bare copper wire in wall box.

4. Test the Color Ray Receiver prior to mounting in wall box:

- Restore the power at the circuit breaker or fuse.
- Turn remote on to test.
- If the lights still do not turn on, refer to the troubleshooting section.

Mounting

1. Turn off the power at the circuit breaker or fuse.
2. Carefully position all wires so that there is room for the wall box for the dimmer.
3. Mount the dimmer into the box with the supplied mounting screws.
4. Attach the wallplate.
5. Complete the installation by restoring power at the circuit breaker or fuse.

Data Connection

Fixtures on a serial data link must be daisy chained in one single line. To comply with the EIA-485 standard, no more than 32 fixtures should be connected on one data link. Connecting more than 32 fixtures on one serial data link without the use of a DATA optically-isolated splitter may result in deterioration of the digital DMX signal.

Maximum recommended serial data link distance: 500 m (1640 ft)

Maximum recommended number of fixtures on a serial data link: 32

DMX Data Cable

If installer prefers 3-wire data cables, we suggest a Belden© 9481 or equivalent cable which meets the specifications for EIA RS-485 applications (Use PCL002 DMX hardwiring DMX coupler). Standard microphone cables cannot transmit Color Ray signal reliably over long distances. The cable must have the following characteristics:

<i>Type:</i>	<i>shielded, 2-conductor twisted pair</i>
<i>Maximum capacitance between conductors:</i>	<i>30 pF/ft</i>
<i>Maximum capacitance between conductor and shield:</i>	<i>55 pF/ft</i>
<i>Maximum resistance:</i>	<i>20 ohms/1000 ft</i>
<i>Normal impedance:</i>	<i>100~140 ohms</i>

If installer prefers a RJ45/CAT5 Data installation, a RJ45 jack can be used (use PCL004 RJ45 coupler).

Notice: To comply with all local codes and jurisdiction, qualified communications technicians must do communications wiring.

Notice: Communication cables and AC power lines must not be run in the same conduit.

- A. Route Data Cables in series between housing and any communications accessories using DATA IN and DATA OUT.
- B. In order that they may be easily accessed from the room once construction is complete, secure data cables in the immediate proximity of the housings.

Coloronix strongly recommends clearly marking communication cables in such a way to indicate the correct order of connection.

- C. Use RJ45 DMX terminator, insert in "DATA OUT" of last fixture in series.

*To avoid signal transmission problems and interference, it is always advisable to connect to a DMX signal terminator.

Troubleshooting Guide

If light does not turn ON and ON/OFF LED does not turn on, check if:

- Lamp is burned out.
- Lamp neutral connection is not wired.

If does not light, check if:

- Electrical power is not connected.
- Electrical power is less than specific voltage.
- Electrical power is greater than specified voltage.

If control operation flickers or is intermittent, check if:

- Color Changing fixtures or final DMX device in daisy chain is not terminated.
- DATA cable is damaged.
- DATA control device is operating at less than 25Hz.

Further Troubleshooting

Should problems occur while using the product, unplug it at once and contact:

- Coloronix, Inc.
- Tech Support: (909) RGBW-555
- support@coloronix.com

Replacing Failed Fixture

“Hot Swapping” a fixture is not allowed. If a fixture needs to be replaced, the steps are to:

1. Disconnect the DMX input at the junction box of the fixture needing replacement.
2. Disconnect DMX output.
3. Replace fixture.
4. Reconnect power negative.
5. Reconnect power positive.
6. Reconnect DATA output.
7. Reconnect DATA input.
8. Reconnect power.
9. Make sure the replaced fixture and the entire system is in working order.

Warranty Information

3 YEAR PRODUCT LIMITED WARRANTY

Coloronix, Inc. provides a warranty to LED fixtures in case of physical or assembly-related malfunctions. This warranty is valid up to three years from the product's purchase date. Furthermore, Coloronix, Inc. offers to repair products with no charge for labor, or at its own discretion, may offer to replace parts at no charge. However, any labor to remove or install fixtures is not covered. This warranty is only valid for the original purchaser of the product. Proof of date of purchase by receipt or by other means (deemed acceptable by Coloronix, Inc.) is necessary for any warranty service. The warranty only covers product failures due to failure in parts or labor resulting from normal use. The warranty does not cover product failure due to mistake, improper use, mistreatment, neglect, modification, improper installation, inappropriate application of product, or any other defect not resulting from the manufacturer's construction or labor. This warranty does not cover damages resulting from products interacted with non-Coloronix, Inc. brand products. Corrosion or discoloration in components or products are not covered. Except as written above, no other warranties are applicable.

Coloronix, Inc. is not liable for any damages—accidental, unusual, or resulting—in breach of this warranty. Any warranties, stated here or implied, are only valid for the duration of this warranty.

The length, limitation, or cancellation of a warranty, whether incidental or resulting from use, may not apply to individuals in certain states.

This warranty is the only warranty, written or verbal, accepted by Coloronix, Inc. The rights of the consumer herein may be different from state to state.

For warranty service, please write to:

Coloronix, Inc.
5461 W. Jefferson Blvd.
Los Angeles, CA 90016.

Please include the product name, a description of the product, and address and telephone contacts.

Coloronix, Inc. will offer a solution to the problem, or provide instructions for return. Any returns must include the return material authorization code (provided by Coloronix, Inc.), as well as return freight prepaid. Returns without a return authorization code will not be accepted.

Coloronix, Inc. accepts no liability for any damages incurred in shipping. All products are inspected as packed. Damages, apparent or not, must be claimed with the delivery carrier.